In re Patent Application of FURRER et al.

Serial No. 10/614,523
Filed: 7/03/2003

Page 2 of 11

## In the Claims:

- 1. (Original) Communication device for processing outgoing and incoming packets, the device comprising:
- a plurality of signal processing units connected in sequence, each signal processing unit being clocked by a common clock signal;
- a mode line connected to each signal processing unit for switching each signal processing unit between a transmit mode and a receive mode; and
- a control line to which each signal processing unit is connected, the control line communicating flow control information either in the transmit mode to at least one of the preceding signal processing units or in the receive mode to at least one of the following signal processing units.
- 2. (Currently amended) Communication device for processing an outgoing packet, the device comprising:
- a plurality of signal processing units connected in sequence, each signal processing unit being clocked by a common clock signal; and
- a control line to which each signal processing unit is connected, the control line communicating flow control information to  $\underline{\text{stall}}$  at least one of the preceding signal processing units  $\underline{\text{for feedback control of the signal}}$  processing units.
- 3. (Currently amended) Communication device for processing an incoming packet, the device comprising:
- a plurality of signal processing units connected in sequence thereby forming a signal processing chain, each signal processing unit being clocked by a common clock signal; and
- a control line to which each signal processing unit is connected, the control line communicating flow control information to <u>stall</u> at least one of the signal processing units following in the signal processing chain <u>for feedforward</u> control of the signal processing units.
- 4. (Original) Device according to claim 1, wherein each signal processing unit comprises a multiplexing unit.
- 5. (Original) Device according to claim 2, wherein each signal processing unit comprises a multiplexing unit.
- 6. (Original) Device according to claim 3, wherein each signal processing unit comprises a multiplexing unit.

In re Patent Application of FURRER et al.
Serial No. 10/614,523
Filed: 7/03/2003

Page 3 of 11

- 7. (Original) Device according to claim 1, wherein each signal processing unit comprises a multiplexer at its input and a demultiplexer at its output.
- 8. (Original) Device according to claim 2, wherein each signal processing unit comprises a multiplexer at its input and a demultiplexer at its output.
- 9. (Original) Device according to claim 3, wherein each signal processing unit comprises a multiplexer at its input and a demultiplexer at its output.
- 10. (Original) Device according to claim 1, wherein each signal processing unit is connected via a logic unit to the control line.
- 11. (Original) Device according to claim 2, wherein each signal processing unit is connected via a logic unit to the control line.
- 12. (Original) Device according to claim 3, wherein each signal processing unit is connected via a logic unit to the control line.
- 13. (Original) Device according to claim 10, wherein the logic unit comprises an OR gate.
- 14. (Original) Device according to claim 11, wherein the logic unit comprises an OR gate.
- 15. (Original) Device according to claim 12, wherein the logic unit comprises an OR gate.
- 16. (Original) Device according to claim 1, wherein the flow control information comprises a hold information indicating to the signal processing units receiving the hold information to stop processing.
- 17. (Original) Device according to claim 2, wherein the flow control information comprises a hold information indicating to the signal processing units receiving the hold information to stop processing.
- 18. (Original) Device according to claim 3, wherein the flow control information comprises a hold information indicating to the signal processing units receiving the hold information to stop processing.
- 19. (Original) Device according to claim 1, wherein each signal processing unit is usable for the transmit and receive mode.
- 20. (Currently amended) Transceiver unit adapted to communicate with a buffer unit via a bus system, the transceiver unit comprising: a transceiver controller and a communication device, both transceiver controller and communication device being interconnected, the transceiver

In re Patent Application of FURRER et al.

Serial No. 10/614,523 Filed: **7/03/2003** 

Page 4 of 11

unit is adapted to communicate with a buffer unit via a bus system; wherein said communication device comprises: a plurality of signal processing units connected in sequence, each signal processing unit being clocked by a common clock signal; a mode line connected to each processing unit for switching each processing unit between a transmit mode and a receive mode; and a control line to which each signal processing unit is connected, the control line communicating flow control information either in the transmit mode to at least one of the preceding signal processing units or in the receive mode to at least one of the following signal processing units.

- a transceiver controller; and
- <u>a communication device, both transceiver controller and communication</u>
  <u>device being interconnected, said communication device including</u>
  - a plurality of signal processing units connected in sequence, each signal processing unit being clocked by a common clock signal;
  - a mode line connected to each processing unit for switching each processing unit between a transmit mode and a receive mode; and
  - a control line to which each signal processing unit is connected, the control line communicating flow control information either in the transmit mode to at least one of the preceding signal processing units or in the receive mode to at least one of the following signal processing units.
- 21. (Currently amended) Transceiver unit adapted to communicate with a buffer unit via a bus system, the transceiver unit comprising: attransceiver controller and a communication device, both being interconnected, the transceiver unit is adapted to communicate with a buffer unit via a bus system; wherein said communication device comprises: a plurality of signal processing units connected in sequence, each signal processing unit being clocked by a common clock signal; and a control line to which each signal processing unit is connected, the control line communicating flow control information to at least one of the preceding signal processing units.
  - a transceiver controller; and
- a communication device, both transceiver controller and communication device being interconnected, said communication device including

In re Patent Application of FURRER et al.

Serial No. 10/614,523 Filed: **7/03/2003** 

Page 5 of 11

a plurality of signal processing units connected in sequence,
each signal processing unit being clocked by a common clock signal; and
a control line to which each signal processing unit is
connected, the control line communicating flow control information to
stall at least one of the preceding signal processing units for
feedback control of the signal processing units.

- 22. (Currently amended) Transceiver unit adapted to communicate with a buffer unit via a bus system, the transceiver unit comprising: attransceiver controller and a communication device, both being interconnected, the transceiver unit is adapted to communicate with a buffer unit via a bus system; wherein said communication device comprises: a plurality of signal processing units connected in sequence thereby forming a signal processing chain, each signal processing unit being clocked by a common clock signal; and a control line to which each signal processing unit is connected, the control line communicating flow information to at least one of the signal processing units following the signal processing chain.
  - a transceiver controller; and
- a communication device, both transceiver controller and communication device being interconnected, said communication device including
  - a plurality of signal processing units connected in sequence

    thereby forming a signal processing chain, each signal processing unit

    being clocked by a common clock signal; and
  - a control line to which each signal processing unit is connected, the control line communicating flow information to stall at least one of the signal processing units following the signal processing chain for feedforward control of the signal processing units.
- 28. (Currently amended) Baseband system comprising: a communication device, wherein said communication device comprises: a plurality of signal-processing units connected in sequence, each signal processing unit being clocked by a common clock signal; a mode line connected to each processing unit for switching each processing unit between a transmit mode and a receive mode; and a control line to which each signal unit is connected,

In re Patent Application of
FURRER et al.
Serial No. 10/614,523
Filed: 7/03/2003

Page 6 of 11

the control line communicating flow control information either in the transmit mode to at least one of the preceding signal processing units or in the receive mode to at least one of the following signal processing units:

## a communication device including

<u>a plurality of signal processing units connected in sequence,</u>
each signal processing unit being clocked by a common clock signal;

a mode line connected to each processing unit for switching each processing unit between a transmit mode and a receive mode; and

a control line to which each signal unit is connected, the control line communicating flow control information either in the transmit mode to at least one of the preceding signal processing units or in the receive mode to at least one of the following signal processing units.